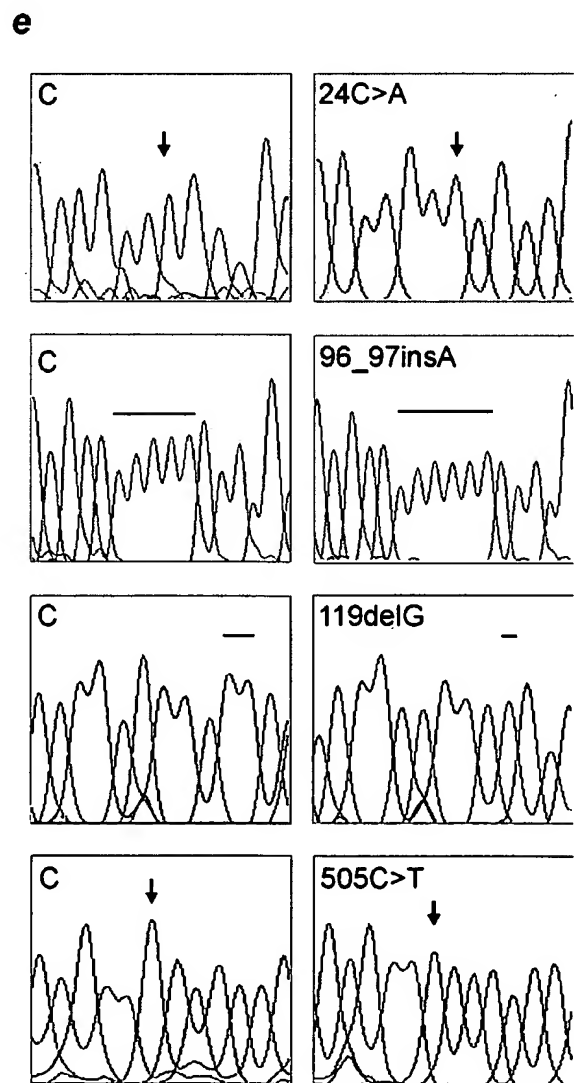
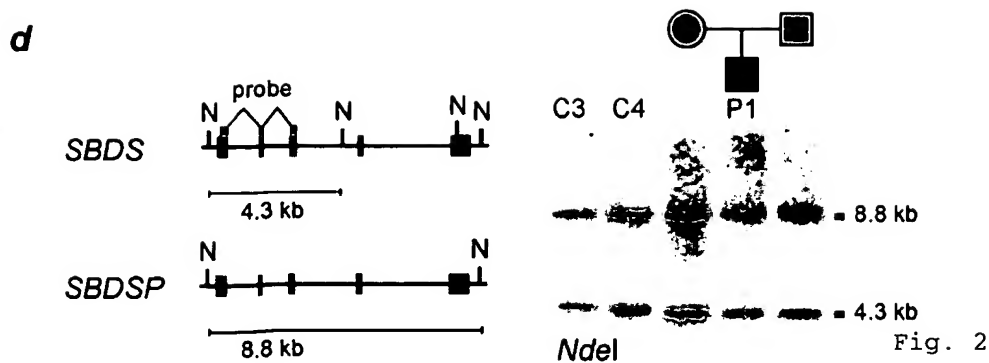
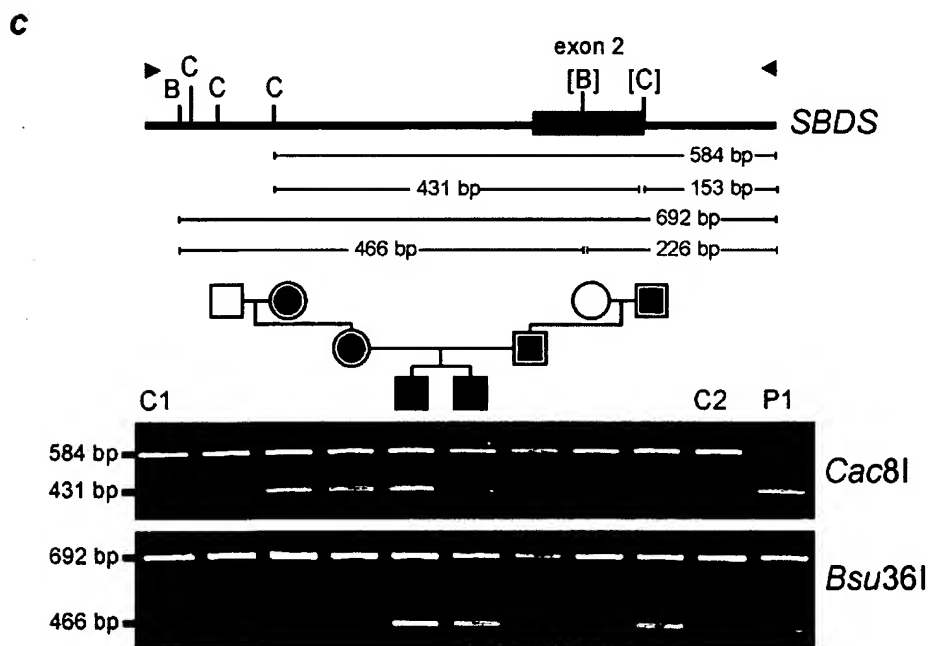
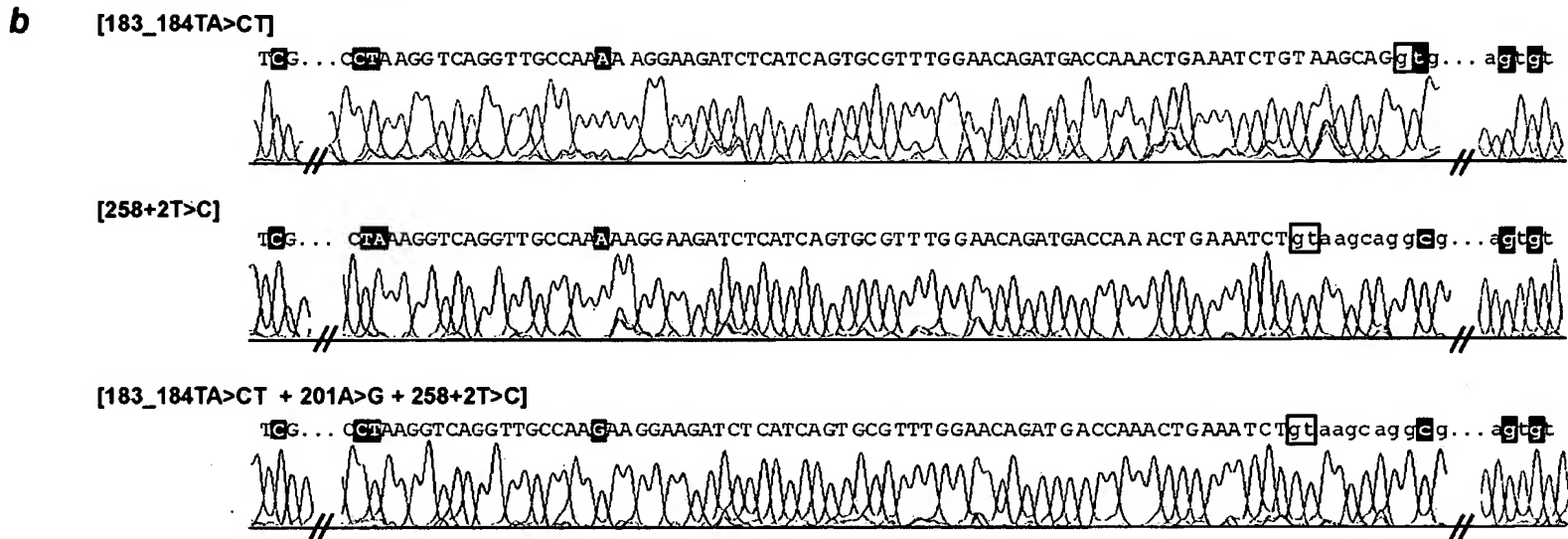
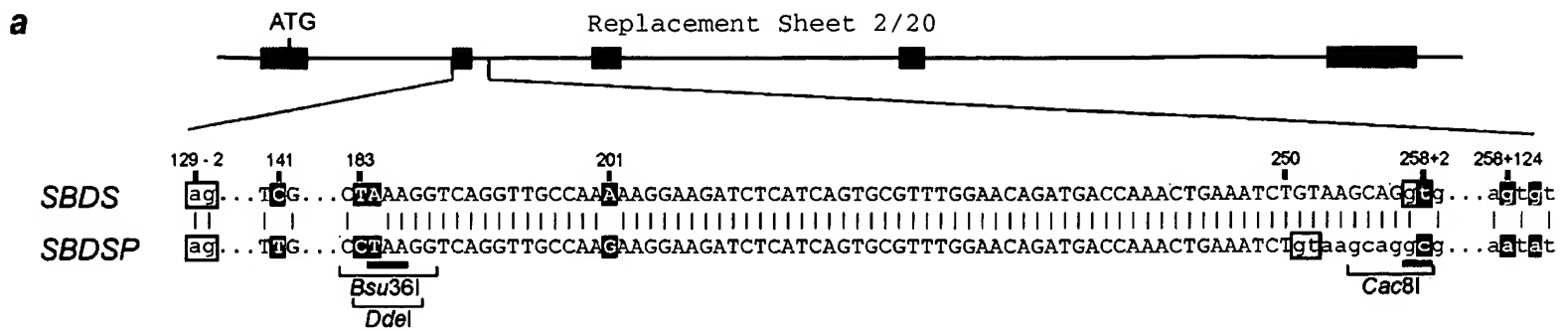


Fig. 1



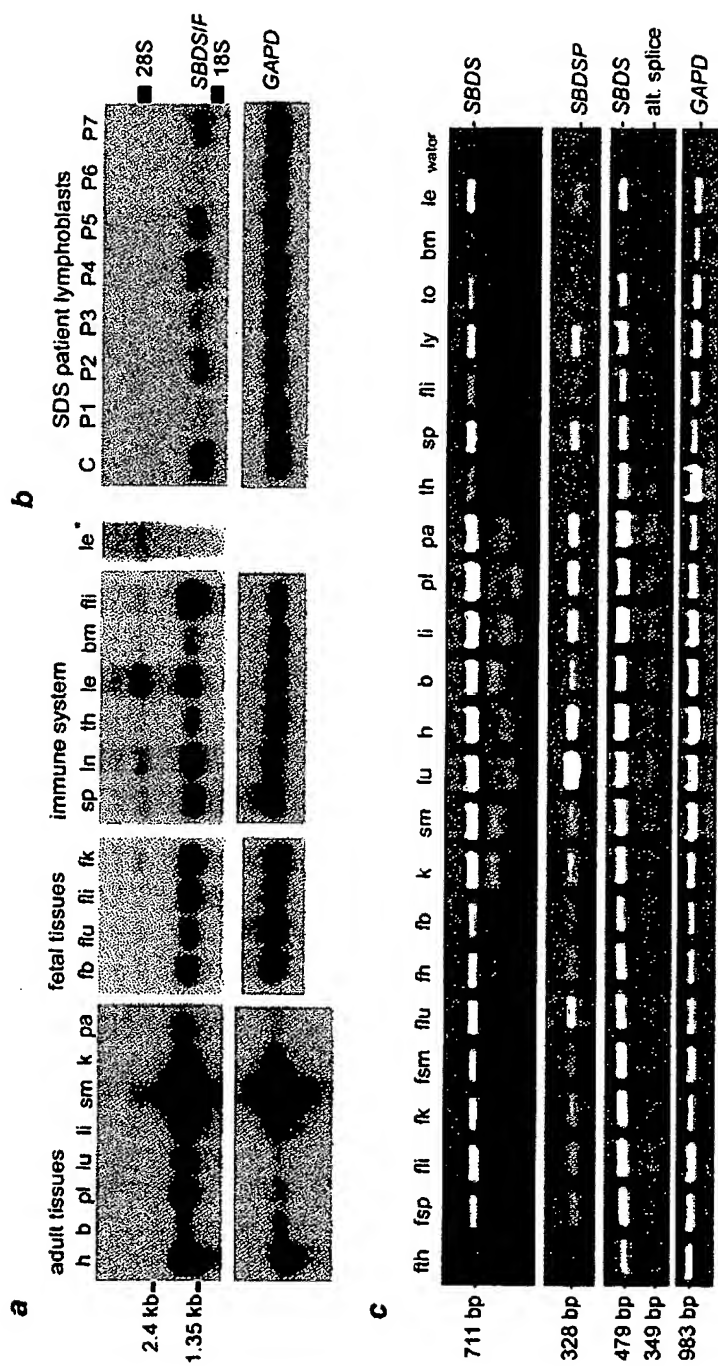


Fig. 3

4/20

SEQ ID
NO: 2

[illegible][illegible]

I212T

Ath	RLTVPVQNFPP-SLLEKLKEWDGSSVSKDES--GTQMSTVCCEMPLGFRECDSHVRSIQ---GRLEILAVSVHAEGETSMDHYDEHDDMAL
Gar+	RLTVPQGNFHF-SLCEKLNNEGATIVSKDES--GTQLSVICIEPLGFRECDSLVRNLQ---GRLEILAVSVHAEGETQVDNYDD-EDISS
Pba+	GLTVSGQNFSS-TLLEKLGAWDANVVSKDES--GSRQSIICEMDPGFFRCDLAVRNLQ---GRLEILAVSVHFEEDTHVDDYDQYEDVAS
Dme	RVSFAGKEGGKLLKESVVKLANVAHEEMD--EATLHLLTLDPGQYRVIDELVRNETKGKGLLELLEKLKVEESEEFL
Cel	RVAIPTEKAK-SVHTKLKTLFSDVEVDQWQ--DGSLEMVGLIEPGSFRALDDLVRNETKGHGRLEILSLKDDVEGELQIS
Mmu	RFTLPVNEGK-KLKEKLPKPLMKVVESEDSY--QQ-LEIVCLIDPGCFREIDELIKKETKGKGSLEVLVSLKDVEEGDEKFE
Hsa	RFILPVNEGK-KLKEKLPKPLKQVIESEDSY--QQ-LEIVCLIDPGCFREIDELIKKETKGKGSLEVLNLDKDVBERGDEKFE
Ola	RQLQPAKEAK-RLKEKLPKPLQVVESEDF--EE-LEMICLVDPGCFREIDELIRCTKGKGSLEVLNLDKVEEGEEKM
Sce	KVAISEPSRQPELIEKISKLIASSPGESTKPELDPWTCTGLIDPVNYRDLMTLCDK---KG--TVQVLDMVIDNTHNH
Ecu	RVSVESS----DKVAEFVKQNGEIHGG-----YVMIRSDCFPRFKDMCEKEKVR--YLLRREEPEDEEIC
Mac	AVKIPPEYAP-KAYGDISKY-GTITKEEWQK-DGSWIAVVRI PAGVQTOFYALINHLTKGEAQTKLV
Hnr	AVQLPADYAG-SGQAKLREF-GELEREWEQA-DGSWVGVTTFPAGMQDEFYGRVNEVSEGNGETSVVKKDKDELKTR
Mka	AIRIPAKYTG-QAMGVVREF-GDIEREEWQY-DGAWVAVVRLPAGLQDEFFEKLNIEITKGFDFESKILE-RESVEGP
Mja	AVKIPAEFAS-KAYNALYQF-GAVKQEEWQP-DGSLIVLIEIPSGIEAEFYAHLNKITKGNVQTKVVKYKSE
Afu	AIKIPPEHTG-RAISALYNF-GGVTRBEWQR-DGSWICVMRI PSGMIGDMLDLGKVAKEGAQTLKVLRRIG
Pab	AVKIPSEYVG-RAYGEVRKF-GRIKKEEWAS-DGSWLFTEIPGGVEEFYFKLNALTKGNAQTKLIERKGL
Tac	AVKLIGDAYG-KLYGELAKS-GYM-KEEWGK-DGSWMGILEVPAGIQGDI IENLSRRGGDKVQIKILKQ
Pae	ALAVSSTYAG-RVKGVLAKM-AKIVNERYKS-DGSWEALLENL PAGLQVVLIRAVNDVTHGDADIRILETVY
Sso	SIKVPSEYSS-KVKSQALNH-GEVKKAMWLE-DGTLAALEIPAGAQQQVINDKLSNLTKEGEVVKLVQVR
Ape	EVKIPPHSG-RAYQALMRL-GEVKKADWLP-DGSLKAELEIPAGAQVEYTSRI OALRAAGAAEVKKVKA

Ath QTHKPLLPAETET--KDLTDPVVELSKKLQKQEI STTDNIKQEGGEEKKGT KCSTCNTFVGEAKQYREHCKSDWHKHN LKRKTRKLPPI S
Gar+ QLPKDSAESA SSSLPPESSDSVIQLSEKIQKHTIY--SGNGAEGEAKQ-HKSTCNAFVGDSKQYRDHFRSEWHKHN LKRKTRQLPPLT
Pba+ ALPK-----ESTDSAVQLSEKIQKQILS--DEK-KAGAEVKQ-NKSTCNVSVGDAKQF

U1-like zinc finger

Ath ADECMSEIDMDDSRADLKDYSE
Gar+ AEECLADVELSDSKTOLQDYSE

5/20

1
|
M S

SBDS ggacggcgcggggtcagccctggttcgccggcttctgggtctttgaacagccgcgATGTCG

SBDSP ggacggcgcggggtcagccctggttcgccggcttctgggtctttgaacagccgcgatgtcg

MUSBDS gtttcagccgagcacttggtcgccccctcgagctcgagatctgtgaacagccaccATGTCG

M S

Fig. 6

Replacement Sheet

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	I F T P T N Q I R L T N V A V V R M K R
SBDS	ATCTTCACCCCCACCAACCAGATCCGCCTAACCAATGTGGCCGTGGTACGGATGAAGCGT
SBDSP	atcttcacccccaccaaccagatccgcctaaccaatgtggccgtgggtacggatgaagcgc
MUSBDS	ATCTTCACCCCCACCAACCAGATCCGACTGACCAATGTGGCCGTGGTACGGATGAAGCGG

	I F T P T N Q I R L T N V A V V R M K R
	A G K R F E I A C Y K N K V V G W R S G
SBDS	GCCGGGAAGCGCTTCGAAATCGCCTGCTACAAAAACAAGGTCGTCGGCTGGCGGAGCGGC
SBDSP	gccaggaagcgcttcgaaatcgccctgctacagaaacaaggctcgtcggctggcgagcggc
MUSBDS	GGAGGGAAGCGCTTCGAAATCGCCTGCTATAAAAAACAAGGTCGTCGGCTGGCGGAGTGGC

	G G K R F E I A C Y K N K V V G W R S G
128	
SBDS	GTgtgagtagccccctccctcgggcctgggcctgggcctgagccgtcacctccgagggcg
SBDSP	ttgtgagtagccccctccctcgggcctgggcctgggcctgagccgtcacctccgagggcg
MUSBDS	GTgtgagtaatcctgtgccagagttcggcggcctgggcctccctaaccgccgtcctgcg

SBDS	cctgtctctgcccagtcgagtggaatgggccaggtggggtgtt---ggccggggagga
SBDSP	cctgtctctgcccagtcgagtggaatgggccaggtggggtgttgggtggccggggagga
MUSBDS	accatcggtacctttcaggcctgggtttaccgattcggattgggttctgctttgggatt

SBDS	aatggaacattcctgctgtgagcatgagacgtcgctgtccgagcttggcgctaagccaa
SBDSP	aatggaacattcctgctgtgagcatgagacgtcgctgtccgagcttggcgctaagccaa
MUSBDS	ttgttagtatcataaaaactgccaactacaaacgcatcagagccgggtgggaccgatgg

	← SDCR9xlseqRev
SBDS	gggtttcttctttatgttggttcggattgggttgggttgggttgggttctgttttgtt
SBDSP	gggtttctt---tatttggttggttcgattgggttgggttgggttgggttctgttttgtt

Fig. 6 (cont.)

7/20

SBDS ggtgtcataaaagctgcagccaagaaatctcgtaattgtggctccttttcctagaataatg
 |||
 SBDSP ggtgtcataaaagctgcagccaagaaatctcataattgtggctccttttcctagaataatg
 |||
 MUSBDS gccagcctggaacgtgtgtgtgtgtatgtgtatgtgtgtgtgtgtgtgtgtatgtgt

← Primer B (SDCR9x1BR)

SBDS	atggcgtgagaacctagtcttacgaatactgtcatag
SBDSP	atggcgtgagaacctagtgttccgaatactgtcatag
MUSBDS	atgtgtgtgtgagagagaccgtgaccgaccctgtac

Primer E (SDCR9x2BF) →

Figure 2 (continued)

	SBDS	SBDSP	MUSBDS
SBDS	aaatggttaaggccaatacaggttctgagttttgaaaatgttccctcaggccgatcggggca		
SBDSP	aaatggttaaggccaatacaggttctgagttttgaaaatgttccctcaggccgatcggggca		
MUSBDS	gtatgtctcttcgtactctgccatctaggacagatattccaggacagaagaaacaccactc		

SBDS gttcacttgaggccaggagttcgaggccagcctggccaacatgaaaccccattcttacta
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
SBDSP gatcacttgaggccaggagttcgaggccagcctggccaacatgaaacaccattcttacta
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS cccaccacaccctgaqtttccttacataaaaacaatgatgtagtgttttccctctgtggtga

SBDS aaaatacaaaagttagccgggtgtggtggcgcacatgcctgtaatcccagttactcaggagggc
 |||||
 SBDSP aaaatacaaaattagccgggtgtggtggcgcacatgcctgtaatcccagctactcaggagggc
 |||||
 MUSBDS aqtqqqgaatccagatactgtccttcgcaggttagccaccagagagagagtgtggtgtgt

SBDS tgaggcgggagaatcacttgaacccgggaggtgaggttacagtgacccgagatcgcgcc
 |||||
 SBDSP tgaggcaggagaatcacttgaacccgggagggcgagcgttgcaagttagccgagatcgcgcc
 |||||
 MUSBDS gtgtgtgtgagattttctcttttttttttctttagggtttttgtttttttttttgtt

Fig. 6 (cont.)

Replacement Sheet

8/20

SBDS attgcactccagcctgggcaaaaacagtgaattccatctagggcgggggttggggggt
 SBDSP attgcactccagcctgggcaaaaacagtgaattccatctagggcgggg---ggggggg-
 MUSBDS ttgtttggtttttttttttttttttttgtgagactggcctcaaactcccaatttccctgcc

Primer C (SDCR9/SDCR9Lx2)→

SBDS aagaaaaagaaaactgccctctacactaaaggtcatcagggggatttcttctgtcttggc
 SBDSP -----aagaaaactgccctctacactaaaggtcatcagggggatttcttctgtcttggc
 MUSBDS tctgcctcctaaatggtgagttacagatgtgcacatcacaccagcttgcagcacttggc

Primer 0 (SDCR9/SDCR9Lx2-3F)→

SBDS gttcatgttgttgcctctcgtattttaaatgtaaatgcatgtccaagtttcaagtatatt
 SBDSP gttcatgttgttgcctctcgtattttaaatgtaaatgcatgtccaagtttcaagtatatt
 MUSBDS atttctcttgttgcctctcgtattttaaatgtaaatgcatgtccaagtttcaagtatatt

129

V E K D L D E V L Q

SBDS cacataggactttctctcctgccctcacaagGGAAAAAGACCTCGATGAAGTTCTGCAGA
 SBDSP cacataggactttctctcctgccctcacaagggaaaaagaccttgatgaagttctgcaga
 MUSBDS cacataggactttctctcctgccctttcaagGGAAAAAGACCTCGATGAAGTTCTGCAGA

V E K D L D E V L Q

T H S V F V N V S K G Q V A K K E D L I

SBDS CCCACTCAGTGTGTTGTAATGTTCTAAAGGTCAGGTTGCCAAAAGGAAGATCTCATCA
 SBDSP cccactcagtgttgttaaatgtttcctaagggtcaggttgccaagaaggaagatctcatca
 MUSBDS CCCATTCAAGTGTGTTGTAATGTTCTAAAGGTCAGGTTGCCAAGAAGGAAGACCTCATCA

T H S V F V N V S K G Q V A K K E D L I

Fig. 6 (cont.)

Replacement Sheet

9/20

S A F G T D D Q T E I C K Q

SBDS GTGCGTTTGGAAACAGATGACCAAACCTGAAATCTGTAAGCAGgtgggtaacagctgcagca
 SBDSP gtgcgttttggaaacagatgaccaaactgaaatctgtaagcaggcgggtaacagctgcagca
 MUSBDS GTGCATTGGGACAGACGACCAGACTGAAATCTGCAAGCAGgttaggtcctgccaggtgca
 S A F G T D D Q T E I C K Q

SBDS tagctaaccctaataaccattttataacgtattttagatatattaaacattaaaggctgt
 SBDSP tagctaaccctaataaccattttataacgtattttagatatattaaacattaaaggctgt
 MUSBDS atgtaacaaaatctcacgatggtaggaacatctggaccactgtgtttactgtttttctt

← Primer D (SDCR9/SDCR9Lx2R)

SBDS ttttctggaggaaagactaaccaagcaataatgtgaactgcacagtgtcacttctaataa
 SBDSP ttttctggaggaaagactaaccaagcaataatgtgaactgcacaaatcacttctaataa
 MUSBDS gatgagttttgtgtgttttagcatttgttgggtccctcccacctccagtttatattgtt

← Primer F (SDCR9x2BR)

SBDS taaagaacttggt
 SBDSP taaagaacttggt
 MUSBDS ggcaatttgggga

SBDS Exon 3: (SEQ ID NO: 37)

Primer G (SDCR9x3BF)→

SDCR9x3CF

→
 SBDS gctcaaaccattacttacatattgatagctggagaggatgaaatttaattttctctccat
 SBDSP gctcaaaccattacttacatattaatagctggagaggatgaaatttaattttctccca-
 MUSBDS tgtaagctgctgctgggttaaggcagcacgtggttctgcgtgagcagctgcagtgaggc

SBDS ccagttactcattttttatgggttagttaataaatagtgtgtgatagagaaagatagtgat
 SBDSP ---gttactcattttttgtcgttagttaataaatagtgtgtgatagagaaagatagtgat

Fig. 6 (cont.)

Replacement Sheet

10/20

MUSBDS cgcctcccttcctccccgctacctacctgtgcagtagagagatacccagaactgatgagg

259

I L T K G E V Q V S D

SBDS ttcttaaatgtgttgccatttttttagATTTGACTAAAGGAGAAGTTCAAGTATCAGAT

SBDSP ttcttaactgtgttgccatttttttagattttgactaaaggagaagttcaagtatcagat

MUSBDS gctttctctatgtttctgccatcttttagATTTGACTAAAGGAGAAGTTCAAGTGTTCAGAT

I L T K G E V Q V S D

Primer T (RTSDCR93F) →

K E R H T Q L E Q M F R D I A T I V A D

SBDS AAAGAAAGACACACCAACTGGAGCAGATGTTTAGGGACATTGCAACTATTGTGGCAGAC

SBDSP aaaga----cacacacaactggagcagatgtttagggacattgcaattattgtggcagac

MUSBDS AAAGAACGGCACACACAGCTGGAGCAGATGTTTAGGGATATCGCCACCATTGTGGCAGAC

K E R H T Q L E Q M F R D I A T I V A D

K C V N P E T K R P Y T V I L I E R A M

SBDS AAATGTGTGAATCCTGAAACAAAGAGACCATACACCGTGATCCTTATTGAGAGAGCCATG

SBDSP aaatgtgtgactcctgaaacaaagagaccatacaccgatgccttattgagagagccatg

MUSBDS AAGTGTGTGAACCCAGAAACAAAGAGACCTTACACCGTTATCCTCATCGAGAGAGCCATG

K C V N P E T K R P Y T V I L I E R A M

459

← Primer S (RTSDCR93R)

K D I H Y S V K T N K S T K Q Q

SBDS AAGGACATCCACTATTCCGGTGAAAACCAACAAGAGTACAAAACAGCAGgtgagtggtttc

SBDSP aaggacatccactatttgggtgaaaaccaacaggagtacaaaacagcaggtgagtggtctc

MUSBDS AAGGACATCCACTACTCCGTGAAAACCAACAAGAGCACAAAGCAACAGtaagggttcct

K D I H Y S V K P N K S T K Q Q

← Primer P (SDCR9/SDCR9Lx2-3R)

SBDS tcatgtcatcaaaatatagccatggaatcagttttctctgaagaaatcattaaaaataat

SBDSP tcatgtcatcaaaatatagccatggaatcagttttctctgaagaaatcattaaaaataat

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Fig. 6 (cont.)

11/20

SBDS ggggtctggggccaggcacaatggttcagtctgtaatcctagcactttgggagccaagat
 |||||
 SBDS^P ggggtctggggccaggcacaatggttcatacccgtaatcctagcactttgggagccaagat
 |||||
 MUSBD^S - tctctggggtcagcagcacacactctccaggtctgcctggctgtgctgggtgctcatcattctg

SBDS gggaggattgcttgaggcctggaaacagcctgggaaacatagggacgccccatctctaaa
 |||||
SBDSP gggaggattgcttgaggcctggaaacagcctgggaaacatagggacgccccatctctaaa
 |||||
MUSBDS aqcagaccctctcccggtgagccatacccttagctgctgctcctcagtgtagcggaaca

SBDs tttttttttt-----ttttt---tgagacagagtcttactctattgccagggtg
| | | | | | | | | | | | | | | | | | | | | | | | |
SBDSP tttttttgtttattgttgttttttgttgagacagagtcgcactgtgtgccagggtg
 | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS caaatcacacagaactccttttqtttqtqtttqtttqtttgggggttttttttttttttt

SBDS g a g t g c a g t a g t a t g a t c t c g g g t c a c - t a c a a t c t c c a c c t c c c g g t t c a a g c a a g t c
 |||||
 SBDS^P g a g t g c a g t g g c a g a t c t c g g t c a c t t a c a a t c t c c a c c t c c c g g t t c a a g c a a g t c
 |||||
 MUSBDS t t a g t t t t g t t t t t g t c t t t c g a g a c a g g g t t t c t c t g t a t t g c c c t g g g t g t c c t g g a

SBDS t c c t g c c t c a g c c t c c t g a g t a g c t g g g a t t a t a g g c a c g t g c c a c c a c t c a g c t a a t
 |||||
 SBDSP t c c t g c c t c a g c c t c c c a a g t a g c t g g g a t t a t a g g c a c g c g c c a c c a c c c a g c t a a t
 |||||
 MUSBDS a c t c g c t c t g t a g c c c a g g c t g g c c t c g a a c t c a g a a a t c c g c c t g c c t c t g c c t c c c a a

SBDS tttg-tat ttttttagtagagttgaggtttccacatgttgccagagctgggtcctgaaactcct
 |||||
 SBDSP tttgttat ttttttagtagagttgaggttttaccatgttgccagagctgggtcctgaaactcct
 |||||
 MUSBDS gtgctgggattaaaggcgtgggccaccacacctggctcatacagaactccttatttcctgc

SBDS gaccctaggtgatccgtccgccttggcctcccaaagtgctgggattacaggcatcagcta
|||
SBDSP gacctcaggtgatccgtccgccttggcctcccaaagtgctgggattacaggcatcagcta

Fig. 6 (cont.)

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SBDS agtagccatccccattttccccccacaggccctcccaaccactaatctcctctcggtta
 |||||
 SBDSP agtagctatccccattttccccccacaggccctcccaaccactaatctcctgtcggtta
 |||||
 MUSBDS aaagaaagaaagcaagcaagcaagcaagcgagcaatgggtgtttcacagcgcgaagtatag
 |||||

SBDs tggacttctcaattctggacatttcataataatggaatcataacaatatgtggccttttca
| | | | |
SBDSP tggacttgtcaattctggacatttcataataatggaatcataacaatatgtggccttttca
 | | | | | |
MUSBDS tatgaccocatataactaacagocctgcotgagtattactgcttaggcagtgggcctgactt

SBDS tggttcatacatggttgtaacctgcatcagcatgtcatttcttttttatgccggaataata
 |||||
 SBDSP gggttcatacatggttgtaacctgcatcagcatgtcatttcttttttatgccggaataata
 |||||
 MUSBDS agacctgatcatgtacgtccagaaaaggcctgggtggaaaactggaaggagccagagaaga
 |||||

SBDS gcccactgtacggaaaagaacacattttgttcattcatctatcagttgatagacattggg
 |||
 SBDSP gcccactgtacggaaaaaacatattttgttcattcatttatcagttgatagacattggg
 |||
 MUSBDS acctccatacacaagaactctgggcaacctcagaactactcatgtccattccacaaccca

SBDS ttgctttcacttttgagctatgatgagcaatgctgctataaaaatttcttgtagtgtttctg
 |||||
 SBDSP ttgctttcacttttgagctatgatgagcaatgctgctataaaaatttcttgtagtgttttg
 |||||
 MUSBDS accaggggcttctctgtacagggaaacaagcacaggagagtcatcaagggactaacgagct

SBDS tgtagacatatgttttcatttctgtatacctgggtgactacaaacctatttctaaaacag
 |||||
 SBDSP tgtagacatatatttctatttctgtatacctggggactacaaacctatttctaaaacag
 | | | | |
 MUSBDS cacatcgaccacctgtgcactgttcccctctccataaacctcagattgcacaagctcagc

SBDS ctgcaccatttttactttaccacccatcagtggttaagagttcagttctccacatcctcag
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
SBDSP ctgcaccatttttacattaccaccaacagcggttaagagttcagttctccacatcctcag
| . | | | | | | | | | | | | | | | | | | | | | . | | | | |

Replacement Sheet

14/20

MUSBDS ccccgctctcctccacatccagctgccagtgactgacgctgcctgcggtcagtgccagag

SBDS taatacttgtcattgtctgcctttttgatgatggccatcctgggtggtatcttgtcgtggt
 SBDSP taatacttgtcattgtctgcctttttgatgatggccatcctgggtggtatcttgtcgtcgt
 MUSBDS gtgccaaggcaaggcctgtgaggaccttactgtgtatcactaggcgtccagcactctg

SBDS tttgatttgcatttccttaataatgatgatttgagcatatttccatgtgcttattgggtgcctc
 SBDSP tttgatttgcatttccttaataatgatgatttgagcatatttccatgtgcttattgggtgcctc
 MUSBDS gatgactgttatttagactttcaggggaagccactagtcttcttaccagtgacagcttctc

SBDS gtctgtcttcttttgagaaatctctgttcagggttctttgccc-----a-----c-c-c---
 SBDSP gtctgtctgcttttgagaaatctctgttcagggttctttgccccctttttattctcgtctc
 MUSBDS aggcacgggtgtccacagagtgggaaggcccttgctggacggctggtgggaagctctggg

SBDS --c-ccc---c-----gc-----c-c--tct---t-tttgcaaactctgcctcccga
 SBDSP gtcacccagactagagtgcagtgccgatctcggctcattgcaaactctgcctcccga
 MUSBDS ccatthttcccaaggagcatgtctctgctctcaccactgttagaattactgtgaactcagc

SBDS ttcaagcaattctcctgcctcagcctcttgagtagctgggattacaggcgtgcactacca
 SBDSP ttcaagcaattctcctgcctcagcctcttgagtagctgggtactacaggcgtgtgctacca
 MUSBDS tatgggctcaggctcctcaagggtcatggcttaaaacagggttggcttagaagtctccgag

SBDS caccgggctaatttttcttttttgtatttttagtgagacggggtttcaccatgttggc
 SBDSP caccgggctaatttttcttttttgtatttttagtgagacggggtttcaccatgttggc
 MUSBDS gccaaacaaaagacattttgtctgttctagagatgtacgaaattccaccgcacacattt

SBDS caggctggtctcgaattcctgaccttgatgacccgcctcggcctcccaaagtgtctgg
 SBDSP caggctggtctcgaattcctgaccttgatgacccgcctcggcctcccaaagtgtctgg
 MUSBDS tcttgcttttagagagctgaggacagccaggctcctcgtgcatgctgggtagttgcttca

Fig. 6 (cont.)

SDCR9x4seqB →

SBDS aattacagggcgtgagccaccacacctggccttcactttcttcatagttttttgaaacaca
 |||||
 SBDSP gattagagggcgtgagccaccacacctggccttcactttcttcataattttttgaaacaca
 |||||
 MUSBDS ccactgaactgagtcccagcctttaacgttgctttctgccgaagcaaaaattattttttt

SBDS aaagcttttcttcttgataagtccaatttttctatttttttttaacggtcacttatgtt
 |||||
 SBDSP aaagcttttcttcttgataagtccaatttttcta-ttttttttaacggtcacttatgtt
 |||||
 MUSBDS ttccatttcacaaaatgagacactagctcatttttaggtatttctaggattgctggtac

SBDS cttaatgttatacctaagaaaccattacctaataccaactacatggaaactactttgtttt
 |||||
 SBDSP cttaatgttatacctaagaaaccattacctaataccaactacatggaaactactttgtttt
 |||||
 MUSBDS cttggctgtaaaactgctggcataaggcagctatgtggaaactgctttgtcatgtctaa

460

SBDS tgaaaaccttatgaaataatatagtagaagaaattgcattctcgattttgtcttggttagG
 |||||
 SBDSP tgaaaaccttatgaaataatatagtagaagaaattgcattctcgattttgtcttggttagg
 |||||
 MUSBDS catataaatttgtgcagcacaaaaactaagtaacgagcacccttgttctgtcttaaagG

A L E V I K Q L K E K M K I E R A H M R

SBDS CTTTGGAAGTGATAAAGCAGTTAAAGAGAAAATGAAGATAGAACGTGCTCACATGAGGC
 |||||
 SBDSP ctttggaagtgataaagcagttaaaagagaaaatgaagatagaacgtgctcacatgaggc
 |||||
 MUSBDS CTTTGGAAGTGATAAAGCAGCTGAAAGAGAAGATGAAGATAGAGCGGGCCACATGCGAT

A L E V I K Q L K E K M K I E R A H M R

L R F I L P V N E G K K L K E K L K P L

SBDS TTCGGTTCATCCTTCCAGTCAATGAAGGCAAGAAGCTGAAAGAAAAGCTCAAGCCACTGA
 |||||
 SBDSP ttccagttcatccttccagtgaatgaaggcaagaagctgaaagaaaagctcaagccactga
 |||||
 MUSBDS TGCGCTTCATCCTGCCAGTGACGAAGGGAAGAAGCTGAAGGAGAAGCTGAAGCCACTGA

Fig. 6 (cont.)

L R F I L P V N E G K K L K E K L K P L

624

I K V I E S E D Y G Q Q L E I

SBDS TCAAGGTCATAGAAAGTGAAGATTATGGCCAACAGTTAGAAATCgtaagagtcaaatatt
 |||||
 SBDSP tcaaggcatagaaagtaaagattatggccaacagttagaaatcgtaagagtcaaatatt
 |||||
 MUSBDS TGAAGGTGGTGGAGAGTGAGGACTACAGCCAGCAGCTGGAGATCgtaagatgatgggtggc
 M K V V E S E D Y S Q Q L E I

SBDS ttctttgcttcatgttacctaaatattgtattctctagtaataaattttagcaaacatt
 |||||
 SBDSP ttctttgcttcatgttacctaaatattgtattctctagtaataaattttagcaaacatt
 |||||
 MUSBDS ggggagcaggtggcgagccaaggtcccatgattatgaccttaacacattattattcttg

← Primer J (SDCR9x4CR)

SBDS tagatgttgtaaag-ctcagatattttc
 |||||
 SBDSP cagacattgtaaagcagtcagatattttc
 |||||
 MUSBDS gcttccttctacccaatagcctcgttc

SBDS Exon 5: (SEQ ID NO: 39)

Primer K (SDCR9x5CF) →

SBDS tccactgtagatgtgaactaactcatctgacactacttgaagttctaaaatctttgcaaa
 |||||
 SBDSP tccactgtagatgtgaactaaccatctgacactacttgaagttctaaaatctttgcaaa
 |||||
 MUSBDS gtatactgtggctgtcttcagacacagcagaaggcatcggtaccattacagatggttgt

SBDS actgtacacatgggccaggcacagtggtcgtgcctgtaatcccagcactttgggaggcc
 |||||
 SBDSP actgtacacgtgggccaggcacagtggtcgtgcctgtaatcccagcactttgggaggcc
 |||||
 MUSBDS gagccacttgtggttgctgggaattgagctcagaacctctggaagagcagccagtgctga

SBDS aaggtgagcagataacatggtgaaaccctatctctactaaaaatacaaaaaataagccag
 |||||

Replacement Sheet

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SBDS	gagggcagcagataaacacgggtgaaaccctgtctctactaaaaatacaaaaaataagccag
MUSBDS	gcattctctacagcctctgaaccagggtcttgatgctaagcagtgctcactctcagtatg
SBDS	gtgtggtgggtggg-ttctgtaatcccagtttcttgggagggtgaggcaggagaaatcact
SBDS	gtgtggtgggtggggt-ctgtaatcccagtgcttgggaggccgaggcaggagaaatcact
MUSBDS	agctgcagcactggccagggtgagtccttcaagggtgtcttaatacaggcttttactgctgtg
SBDS	tgaacctgggaggcggagggtgcagtgagccaagatcacaccactgcactctatctc-aa
SBDS	tgaacctgggagggtggagggtgcagtgagccaagatcacaccactgcactctatctcaaa
MUSBDS	aacagacaccaggaccaatgcaagtcctataaagaacaacatttagttgagtcctggctta
SBDS	aaaaaaat--aa-attaacatacacatgggtgtctacataagtcttcacattgcttttct
SBDS	aaaaaaataaaacaaaaacatacacatgggtgtctacgtaagtcttcacattgcttttct
MUSBDS	caggttcagaggttcagtcattatcaagggtgggagcatggtagtatccaggtgggaatg
SBDS	ccttcatacgtggagggtgactttactgagctataaaatgtaatgctaaatttttagtatga
SBDS	ccttcatacgtggagggtgactttactgagctataaaatgtaatgctaaatttttagtatga
MUSBDS	atacaggagggggtgagagttcgacatcttcatctgaaggctgctagcagaatactgact
SBDS	gaagaatcagagttttctagtttgtcccttccatttacagctgaagaatcagaataagt
SBDS	gaagaatcagagttttctagtttgtcccttccatttacagcgggaagaatcagaataagt
MUSBDS	tcgaggctgttaggatgagggtcttaaacgctatgaccacagggacacaccttctaatag
SBDS	tttaaacatagggattaatgccttgtcacagggggctacatggacacttgagggcagagg
SBDS	tttaaacatagggattaatgccttgtcacagggggctacatggatacttgagggcagagg
MUSBDS	tgtcactccccgggctgagcatatacaaacgtaaacacgggataagtgcctttcccaaag

Fig. 6 (cont.)

Replacement Sheet

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SBDS ctaaaactggaaccagtggtgccgcctaccattgtcttatttgcaccatagaactg
 |||||
 SBDSP ctgaactggaaccagtggtgccgcctaccattgtcttatttgcaccatagaactg
 |||||
 MUSBDS tccaacagtaggtgcttagaatcgagacagaaccccaggcccgctgctgccctggcct

SDCR9x5Fseq →
 SBDS tggattattagagatctggacagcattgtgcttgcctcaaaggaagttaaagctgagtt
 |||||
 SBDSP tggattat---gagatctggacagcattgtgcttgcctcaaag---ttaagctgagtt
 |||||
 MUSBDS ccatgtgagcagcacctagaacacagtcatagatctgccctgagcattcaaactgggctt

625
 |
 V C
 SBDS tattctgtgtcttctcatcctcatgtggtaatctgctacgttaaatgtttcagGTATGT
 |||||
 SBDSP tattctgtgtcttctcatcctcatgtggttaaatctgctacgttaaatgtttcaggtatgt
 |||||
 MUSBDS attctgtgccgatgcccatcttcccttggaaccagctgtgttactcattgcagGTGTGC
 |||||
 V C

L I D P G C F R E I D E L I K K E T K G
 SBDS CTGATTGACCCGGGCTGCTTCCGAGAAATTGATGAGCTAATAAAAAAGGAAACTAAAGGC
 |||||
 SBDSP ctgattgacctgggctgcttccgagaaattgatgagctaataaaaaaggaaaccaaaggc
 |||||
 MUSBDS CTCATCGACCCAGGCTGCTTCAGAGAAATTGATGAGCTAATAAAAAAGGAAACGAAAGGC
 |||||
 L I D P G C F R E I D E L I K K E T K G

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K G S L E V L N L K D V E E G D E K F E
 SBDS AAAGGTTCTTTGGAAGTACTCAATCTGAAAGATGTAGAAGAAGGAGATGAGAAATTTGAA
 |||||
 SBDSP aaaggttctttggaagtactcaatctgaaagattt-gaagaaggagatgagaaatttgaa
 |||||
 MUSBDS AGGGGTTCTCTGGAAGTGCTCAGTCTGAAGGACGTGGAGGAAGGCGATGAGAAGTTTGAA
 |||||
 R G S L E V L S L K D V E E G D E K F E

SBDS tgacacccatcaatctcttcacctctaaaacactaaagtgtttccggtttccgacggcact
 |||||
 SBDSP tgacacccatcagtcctcttcacctctaaaacactaaagtgtttccggtttccaacagcact
 |||||

Fig. 6 (cont.)

Replacement Sheet

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MUSBDS  ||||| | |||| | | | | | | | |
          TGACaccgcccggctcctcaactggagcacgaccgaggacgcttggtcctcacagcagca

SBDS  gtttcattgtctgtggtctgccaaataacttgcttaaactatttgacattttctatctttgt
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  gtttcattgtctgtggtctgccaaataacttgctcaaactatttgacattttctatctttgt
      || | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  gctcgttctgtgacctgccaaacgccttgctcacgcgacgtgccactttccatcttggtg

SBDS  gttaacagtggacacagcaaggctttcctacataagtataataatgtgggaatgatttgg
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  gttaacagtggacacagcaaggctttcctacataagtataataatgtgggaatgatttgg
      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  taaacatttaccaggtacctgggtattttgtgtgcaattggggtttccagcaaaaatg

SBDS  ttttaattataaaactggggtctaaatcctaagcaaaattgaaactccaagatgcaaaagt
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  ttttaattataaaactggggtctaaatcctaagcaaaattgaaactccaggatgcaaaat
      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  aaaaataacctaaaatacagagtcagaaacagctgctcactgctgcgtctgcctttctag

← Primers L/R (RTSDCR95R/SDCR9x5BR)
SBDS  ccagagtggcattttgctactctgtctcatgccttgatagctttccaaaatgaaagttac
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  ccagagtggcattttgctactctgtctcatgccttgatagctttccaaaatgaaagttac
      || | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  ttccaggggaccagagacagcattgggtggataagaaggtagagttagtcacatgacagatc

SBDS  ttgaggcagctcttgtgggtgaaaagttatttgtacagtagagtaagattattaggggta
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  ttgaggcagctcttgtgggtgaaaagtttttgtacagtagagtaagattattaggggta
      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  attggagaggggtctgaataacaaaggggtacgcctgctggaaagaagatgggggtgttt

SBDS  tgtctatacaacaaaaggggggtctttcctaaaaaagaaaacatatgatgcttcatttc
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
SBDSP  tgtctatacgacaaaa-ggggggtctttcctaaaaaagaaaac--atgatgcttcatttc
      | | | | | | | | | | | | | | | | | | | | | | | | | | | |
MUSBDS  ctgaataatgaagtgcaggtatgggggtgtgagcatggagagaagagttcctgggtccctc

```

Fig. 6 (cont.)

SBDS ttgaacatgctgccataaacttagattattcttgggttaaaaaataaaaagtcacttattttct
SBDSP ttgaacatgctgccataaacttagattattcttgggttaaaaaataaaaagtcacttattttct
MUSBDS aggtttataatatatgttagtataagttaaaattctatgtaatcaataaaaacttattttta

(polyadenylation

site)

SBDS aattcttaaagtttataatatatattaatatagctaaaattgtatgtaatcaataaaacc
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 SBDSP aattcttaaagtttataatatatattaatatagctaaaattgtatgtaatcaataaaacc
 MUSBDS c

(end of human transcript, mRNA of 1605nt)

```
SBDS      actcttatgtttattaaactatggcttggttctagacaacttcctaactccctttcct  
          ||| |||| |  
SBDSP     actcttatgtttattaaactatggcttggttctagacaacttcctaactccctttcct
```

SBDS	ttctc
SBDSP	ttctc